



parkinsonsutility.ST25.txt
SEQUENCE LISTING

<110> St. Jude Children's Research Hospital
University of Tennessee Research Corporation
Smeyne, Richard J.
Tharp, Ruby
Smeyne, Michelle
Williams, Robert

<120> Method for Determining Sensitivity to Environmental Toxins and Susceptibility to Parkinson's Disease

<130> 023868.43877

<140> US 10/734,372

<141> 2003-12-12

<150> 60/433,437

<151> 2002-12-13

<160> 71

<170> PatentIn version 3.2

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parkinsonsutility.ST25.txt

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<400> 15

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<210> 18
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<223> Not a naturally occurring sequence

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<222> (1)..(22)
<223> GST mu(chr1) 5' primer

<400> 19
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22

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18

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21

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<223> Not a naturally occurring sequence

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<222> (1)..(20)
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17

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parkinsonsutility.ST25.txt

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<212>	DNA	
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parkinsonsutility.ST25.txt

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<222> (1)..(23)
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23

<210> 44
<211> 1317
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<211>	21					
<212>	DNA					
<213>	Artificial sequence					
<220>						
<221>	misc_feature					
<222>	(1)..(21)					
<223>	Forward Primer					
<400>	45					
	ggtaaccacc	tgctgttcca	a			21
<210>	46					
<211>	22					
<212>	DNA					
<213>	Artificial sequence					
<220>						
<221>	misc_feature					
<222>	(1)..(22)					
<223>	Reverse Primer					
<400>	46					
	gcttcgggtc	tgtaccaact	tc			22
<210>	47					
<211>	26					
<212>	DNA					
<213>	Artificial sequence					
<220>						
<221>	misc_feature					
<222>	(1)..(26)					
<223>	TaqMan Probe					
<400>	47					
	aagtccccat	ggttgaaatt	gacggg			26

parkinsonsutility.ST25.txt

<210> 48
<211> 1161
<212> DNA
<213> Homo sapiens

<400> 48
ctctgagccc tgctcggttt aggcctgtct gcggaatccg caccaaccag caccatgcc 60
atgatactgg ggtactggga catccgcggg ctggcccacg ccatccgcct gctccggaa 120
tacacagact caagctatga ggaaaagaag tacacgtatgg gggacgctcc tgattatgac 180
agaaggccagt ggctgaatga aaaattcaag ctgggcctgg actttcccaa tctgcctac 240
ttgattgtatgg gggctcacaa gatcaccagg agcaacgcca tcttgcgtca cattgcccgc 300
aagcacaacc tgtgtgggaa gacagaagag gagaagattc gtgtggacat tttggagaac 360
cagaccatgg acaaccatat gcagctggc atgatctgct acaatccaga atttgagaaa 420
ctgaagccaa agtacttggaa ggaactccct gaaaagctaa agctctactc agagtttctg 480
gggaagcggc catggtttgc aggaaacaag atcaacttttgc tagattttct cgtctatgat 540
gtccttgacc tccaccgtat atttgagccc aagtgcgtt acgccttccc aaatctgaag 600
gacttcatct cccgcttga gggcttggag aagatctctg cctacatgaa gtccagccgc 660
ttcctcccaa gacctgtgtt ctcaaagatg gctgtctgg gcaacaagta gggccttga 720
ggccaggagg tgggagttag gagcccatac tcagcctgct gcccaggctg tgcagcgcag 780
ctggactctg catcccagca cctgcctcct cgttccttgc tcctgtttat tcccatctt 840
actcccaaga cttcattgtc cctcttcaact cccccctaaac ccctgtccca tgcaggccct 900
ttgaagcctc agctaccac tatccttcgt gaacatcccc tcccatcatt acccttccct 960
gcactaaagc cagcctgacc ttcccttcgt ttagtggttg tgtctgctt aaaggccctg 1020
cctggccctt cgcctgtgaa gctcagcccc gagctgtccc cgtgttgcattt gaaggagcag 1080
cattgactgg ttacaggcc ctgctcctgc agcatggtcc ctgccttagg cctacctgat 1140
ggaagtaaaag cctcaaccac a 1161

<210> 49
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Not a naturally occurring sequence

<220>
<221> misc_feature
<222> (1)..(20)
<223> Forward Primer

<400> 49
gccctttgaa gcctcagcta

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<210> 50
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> Not a naturally occurring sequence

<220>
<221> misc_feature
<222> (1)..(23)
<223> Reverse Primer

<400> 50
tttagtgcag ggaagggtaa tga 23

<210> 51
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Not a naturally occurring sequence

<220>
<221> misc_feature
<222> (1)..(27)
<223> TaqMan Probe

<400> 51
ccactatcct tcgtgaacat cccctcc 27

<210> 52
<211> 1050
<212> DNA
<213> Homo sapiens

<400> 52
ctctgagccc tgctcggttt aggcctgtct gcggaatccg caccaccag caccatgcc 60
atgatactgg ggtactggga catccgcggg ctggcccacg ccatccgcct gctcctggaa 120
tacacagact caagctatga ggaaaagaag tacacgtatgg gggacgctcc tgattatgac 180
agaagccagt ggctgaatga aaaattcaag ctgggcctgg actttcccaa tctgccctac 240
ttgattgtatgg gggctcacaa gatcacccag agcaacgcca tcttgtcta cattgccgc 300
aagcacaacc tgtgtgggaa gacagaagag gagaagattc gtgtggacat tttggagaac 360
cagaccatgg acaaccatat gcagctggc atgatctgtct acaatccaga atttgagaaaa 420
ctgaagccaa agtacttgaa ggaactccct gaaaagctaa agctctactc agagttctg 480
ggaaagcggc catggttgc aggaaacaag ggcttgaga agatctctgc ctacatgaag 540
tccagccgct tcctcccaag acctgtgttc tcaaagatgg ctgtctgggg caacaagtag 600

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ggccttgaag gccaggaggt gggagtgagg agcccatact cagcctgctg cccaggctgt	660
gcagcgcagc tggactctgc atcccagcac ctgcctcctc gttccttct cctgtttatt	720
cccatcttta ctcccaagac ttcattgtcc ctcttcactc cccctaaacc cctgtcccat	780
gcagggccctt tgaagcctca gctacccact atccttcgtg aacatcccct cccatcatta	840
cccttccctg cactaaagcc agcctgacct tccttcctgt tagtggttgt gtctgcttta	900
aagggcctgc ctggccctc gcctgtggag ctcagcccc agctgtcccc gtgttgcatg	960
aaggagcagc attgacttgtt tacaggccc tgctcctgca gcatggtccc tgcccttaggc	1020
ctacctgatg gaagtaaagc ctcaaccaca	1050

<210> 53
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Not a naturally occurring sequence

<220>
<221> misc_feature
<222> (1)...(20)
<223> Forward Primer

<400> 53 tttaggcctg tctgcggaat	20
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<210> 54
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> Not a naturally occurring sequence

<220>
<221> misc_feature
<222> (1)...(23)
<223> Reverse Primer

<400> 54 gatgtcccgat taccggatgtatca	23
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<210> 55
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Not a naturally occurring sequence

parkinsonsutility.ST25.txt

<220>
<221> misc_feature
<222> (1)..(21)
<223> TaqMan Probe

<400> 55
cgcaccaacc agcaccatgc c

21

<210> 56
<211> 1572
<212> DNA
<213> Homo sapiens

<400> 56		
ggttggttct gagaaggctt caaggaatag gcagacattt cagcaaggct gctgaggaag		60
gataaggctgt ggaaatttagg atgcagcact cctgcccggg tcccgccctcg gggtcgcccag		120
gccctgaacc ccaacgcccgg cattagtcgc gcctgcgcac gcccctgtgg agccgcggag		180
gcaagggacg gagaacgggg cgaggcgga gtcagggcgc ccgcgcgtgg gccccgcccc		240
cttatgtcgg gtataaagcc cctcccgctc acagtttccc tagtcctcga aggctcgaa		300
gcccgtcacc atgtcgtgcg agtcgtctat gggttctcggg tactggata ttctgtggct		360
ggcgcacgcc atccgcctgc tcctggagtt cacggataacc tcttatgagg agaaacggta		420
cacgtgcggg gaagctccctg actatgatcg aagccaatgg ctggatgtga aattcaagct		480
agacctggac tttcctaatac tgccctaccc cctggatggg aagaacaaga tcacccagag		540
caatgccatc ttgcgtaca tcgctcgcaa gcacaacatg tgtggtgaga ctgaagaaga		600
aaagattcga gtggacatca tagagaacca agtaatggat ttccgcacac aactgataag		660
gctctgttac agctctgacc acgaaaaact gaagcctcag tacttggaaag agctacctgg		720
acaactgaaa caattctcca tgggttctgg gaaattctca tgggttgcgg gggaaaagct		780
caccttgtg gatttctca cctatgatat cttggatcag aaccgtatat ttgaccccaa		840
gtgcctggat gagttcccaa acctgaaggc tttcatgtgc cggtttgagg ctttggagaa		900
aatcgctgcc tacttacagt ctgatcagtt ctgcaagatg cccatcaaca acaagatggc		960
ccagtggggc aacaagcctg tatgctgagc aggaggcaga cttgcagagc ttgtttgtt		1020
tcatcctgtc cgtaaggggt cagcgtctt gctttgtct tttcaatgaa tagcacttat		1080
gttactggtg tccagctgag tttcttctgg gtataaaggc taaaaggaa aaaggatatg		1140
tggagaatca tcaagatatg aattgaatcg ctgcgataact ggcatttccc tactcccaa		1200
ctgagttcaa gggctgttagg ttcatgccc agccctgaga gtgggtacta gaaaaaacga		1260
gattgcacag ttggagagag caggtgtgtt aaatggact ggagtccctg tgaagactgg		1320
gtgaggataa cacaagtaaa actgtggtac tcatggactt aaccggagtt cgaaaaaccgt		1380
cctgtgtaca catggaggtt tagtgtgata aaggcagttat ttccagactgg tggctagcc		1440

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aatagagttg ggacaattgc ttactcatta aaaataatag agccccactt gacactattc	1500
actaaaaatta atctggatt taaggccaa cattaaacac aaagctgttg aaataaaaaaa	1560
aaaaaaaaaa aa	1572
<210> 57	
<211> 19	
<212> DNA	
<213> Artificial sequence	
<220>	
<223> Not a naturally occurring sequence	
<220>	
<221> misc_feature	
<222> (1)..(19)	
<223> Forward Primer	
<400> 57	
cgctgcata ctggcattt	19
<210> 58	
<211> 18	
<212> DNA	
<213> Artificial sequence	
<220>	
<223> Not a naturally occurring sequence	
<220>	
<221> misc_feature	
<222> (1)..(18)	
<223> Reverse Primer	
<400> 58	
gggcttgggc atgaacct	18
<210> 59	
<211> 28	
<212> DNA	
<213> Artificial sequence	
<220>	
<223> Not a naturally occurring sequence	
<220>	
<221> misc_feature	
<222> (1)..(28)	
<223> TaqMan Probe	
<400> 59	
cctactcccc aactgagttc aagggctg	28
<210> 60	
<211> 1436	

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<212> DNA
<213> Homo sapiens

<400> 60
ggcgaggccg agcccctcct agtgcttccg gaccttgctc cctgaacact cgaggtggc 60
ggatctt actccttcca gccagtgagg atccagcaac ctgctccgtg cctccgcgc 120
ctgttggttg gaagtgcga cttgaagat cggccgggttgaagtgcga cttgaagat 180
cgccggcgc agcggggccg agggggcggg tctggccta ggtccagccc ctgcgtgccg 240
gaaacccag aggaggtcgc agttcagccc agctgaggcc tgtctgcaga atgcacacca 300
accagcatca tgtccatgac actggggta tggacatcc gcgggctggc ccacccatc 360
cgccctgctcc tggaaatacac agactcaagc tacgaggaaa agaagtatac gatggggac 420
gctcctgact atgacagaag ccagtggctg aatgaaaaat tcaagctggg cctggacttt 480
cccaatctgc cctacttgc tggatggctt cacaagatca cccagagcaa cgccatcctg 540
tgctacattt cccgcaagca caacctgtgt gggagacag aagaggagaa gattcgtgtg 600
gacatttgg agaaccaggc tatggacgac tccaatcagc tggccagagt ctgctacagc 660
cctgactttg agaaactgaa gccagaatac ttggaggaac ttccctacaat gatgcagcac 720
ttctcacagt tcctggggaa gaggccatgg tttgttggag acaagatcac cttttagat 780
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aagtaatgcc ttgaaggcca ggaggtggga gtgaggagcc catactcagc ctgcgtcccc 1020
ggctgtcag cgtagtggc ctctgcattcc cagcacctgc ctccctgtc ctttctccctg 1080
tttattccca tctttacccc caagacttta ttgggcctct tcacttcccc taaacccttg 1140
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tgctttaag ggcctacctg gcccctcgcc tgtggagctc agccctgagc tgcgtccgtg 1320
ttgcatgaca gcattgactg gtttacaggc cctgctccctg cagcatggcc cctgccttag 1380
gcctacctga tcaaaaataaa gcctcagcca caaaaaaaaaaaaaaaa 1436

<210> 61
<211> 18
<212> DNA
<213> Artificial sequence

<220>
<223> Not a naturally occurring sequence

<220>

parkinsonutility.ST25.txt

<221> misc_feature
<222> (1)..(18)
<223> Forward Primer

<400> 61
gcagcgcagc tggactct

18

<210> 62
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> Not a naturally occurring sequence

<220>
<221> misc_feature
<222> (1)..(26)
<223> Reverse Primer

<400> 62
ggttaagatg ggaataaaaca ggagaa

26

<210> 63
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> Not a naturally occurring sequence

<220>
<221> misc_feature
<222> (1)..(24)
<223> TaqMan Probe

<400> 63
atcccagcac ctgcctccctc gttc

24

<210> 64
<211> 1567
<212> DNA
<213> Homo sapiens

<400> 64
tcctgggcct ctcaaagtct gagccccgct ccgctgatgc ctgtctgcag aatccgcacc 60
aaccaggcacc atgcccattga ctctgggta ctggacatc cgtggctgg cccacgccc 120
ccgcttgctc ctggaataaca cagactcaag ctatgtggaa aagaagtaca cgctggggga 180
cgctccctgac tatgacagaaa gccagtggct gaatgaaaaa ttcaagctgg gcctggactt 240
tcccaatctg ccctacttga ttgatgggc tcacaagatc acccagagca atgccatcct 300
gcgctacatt gcccgcaga acAACCTGTG tggggagaca gaagaggaga agattcgtgt 360
ggacattttg gagaaccagg ttatggataa ccacatggag ctggtcagac tgtgctatga 420

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cccaagattt gagaaaactga agccaaaata cttggaggaa ctccctgaaa agctaaagct	480
ctactcagag tttctgggaa agcggccatg gtttgcagga gacaagatca cctttgtgga	540
tttccttgcc tatgatgtcc ttgacatgaa gcgtatattt gagcccaagt gcttggacgc	600
cttccttaaac ttgaaggact tcatctcccg ctttgcagggt ttgaagaaga tctctgccta	660
catgaagtcc agccaattcc tccgaggctt tttgtttgga aagtcagcta catgaaacag	720
caaatagggc ccagtgtgc cagaagatgg gagggaggag ccaaccttgc tgccctgcac	780
cctggaggac agcctgactc cctggacctg ctttcttcct ttttcttctt ttctactctc	840
ttctcttccc caaggcctca ttggcttcct ttcttctaac atcatccctc cccgcacatcga	900
ggctctttaa agcttcagct cccactgtc ctccatcaa gtccccctcc taacgtctc	960
ctttccctgc actaacgcca acctgactgc ttttccctgc agtgctttc tcttcttga	1020
gaagccagac tgatctctga gctcccttagc actgtcctca aagaccatct gtatgccctg	1080
ctcccttgc tgggtcccta cccagctcc gtgtgatgcc cagtaaagcc tgaaccatgc	1140
ctgccatgtc ttgtcttatt ccctgaggct ccctgactc aggactgtgc tcgaattgtg	1200
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ctcactcatt cgcgctcctg taggccgtct agaactggca tggttcaaag aggggctagg	1440
ctgatgggaa agggggctga gcagctccca ggcagactgc cttcttcac cctgtccctga	1500
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gtattgt	1567

<210> 65
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Not a naturally occurring sequence

<220>
<221> misc_feature
<222> (1)..(20)
<223> Forward Primer

<400> 65
cagcaaatacg cgcggcgtga 20

<210> 66
<211> 16
<212> DNA

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<213> Artificial sequence

<220>

<223> Not a naturally occurring sequence

<220>

<221> misc_feature

<222> (1)..(16)

<223> Reverse Primer

<400> 66

gggtcgcagg cagcaa

16

<210> 67

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Not a naturally occurring sequence

<220>

<221> misc_feature

<222> (1)..(24)

<223> TaqMan Probe

<400> 67

ccagaagatg ggagggagga gccaa

24

<210> 68

<211> 793

<212> DNA

<213> Homarus gammarus

<400> 68

tgcgccacga tgtccgggaa gtcagccagg agcttgggaa aggaaagcgc gccccgggg

60

ccggtcccggtt agggctcgat ccgcattctac agcatgaggt tctgcccgtt tgctgagagg

120

acgcgtcttag tcctgaaggc caagggaaatc aggcatgaag tcatcaatat caacctgaaa

180

aataagcctg agtggttctt taagaaaaat ccctttggtc tggtgccagt tctggaaaac

240

agtcagggtc agctgatcta cgagtctgcc atcacctgtg agtacctggaa tgaagcatac

300

ccagggaaatc agctgttgcc ggtatgaccatc tatgagaaatc cttgccagaa gatgatctta

360

gagttttt ctaaggtgcc atccttggta ggaagttta tttagaagcca aaataaagaa

420

gactatgctg gcctaaaaga agaatttcgt aaagaattta ccaagctaga ggaggttctg

480

actaataaga agacgacattt ctttgggtgc aattctatct ctatgattga ttacctcatc

540

tggccctgggt ttgaacggct ggaagcaatg aagttaaatg agtgtgtaga ccacactcca

600

aaactgaaac tgtggatggc agccatgaag gaagatcccc cagtctcagc cctgcttact

660

agtgagaaatc actggcaagg tttccttagag ctctacttac agaacagcccc tgaggcctgt

720

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gactatgggc tctgaagggg gcaggagtca gcaataaagc tatgtctgat atttccttc	780
agtaaaaaaa aaa	793
<210> 69	
<211> 21	
<212> DNA	
<213> Artificial sequence	
<220>	
<223> Not a naturally occurring sequence	
<220>	
<221> misc_feature	
<222> (1)..(21)	
<223> Forward Primer	
<400> 69	
ccgcatctac agcatgaggt t	21
<210> 70	
<211> 20	
<212> DNA	
<213> Artificial sequence	
<220>	
<223> Not a naturally occurring sequence	
<220>	
<221> misc_feature	
<222> (1)..(20)	
<223> Reverse Primer	
<400> 70	
tcccttggcc ttcaggacta	20
<210> 71	
<211> 22	
<212> DNA	
<213> Artificial sequence	
<220>	
<223> Not a naturally occurring sequence	
<220>	
<221> misc_feature	
<222> (1)..(22)	
<223> TaqMan Probe	
<400> 71	
tgcccgtttg ctgagaggac gc	22